

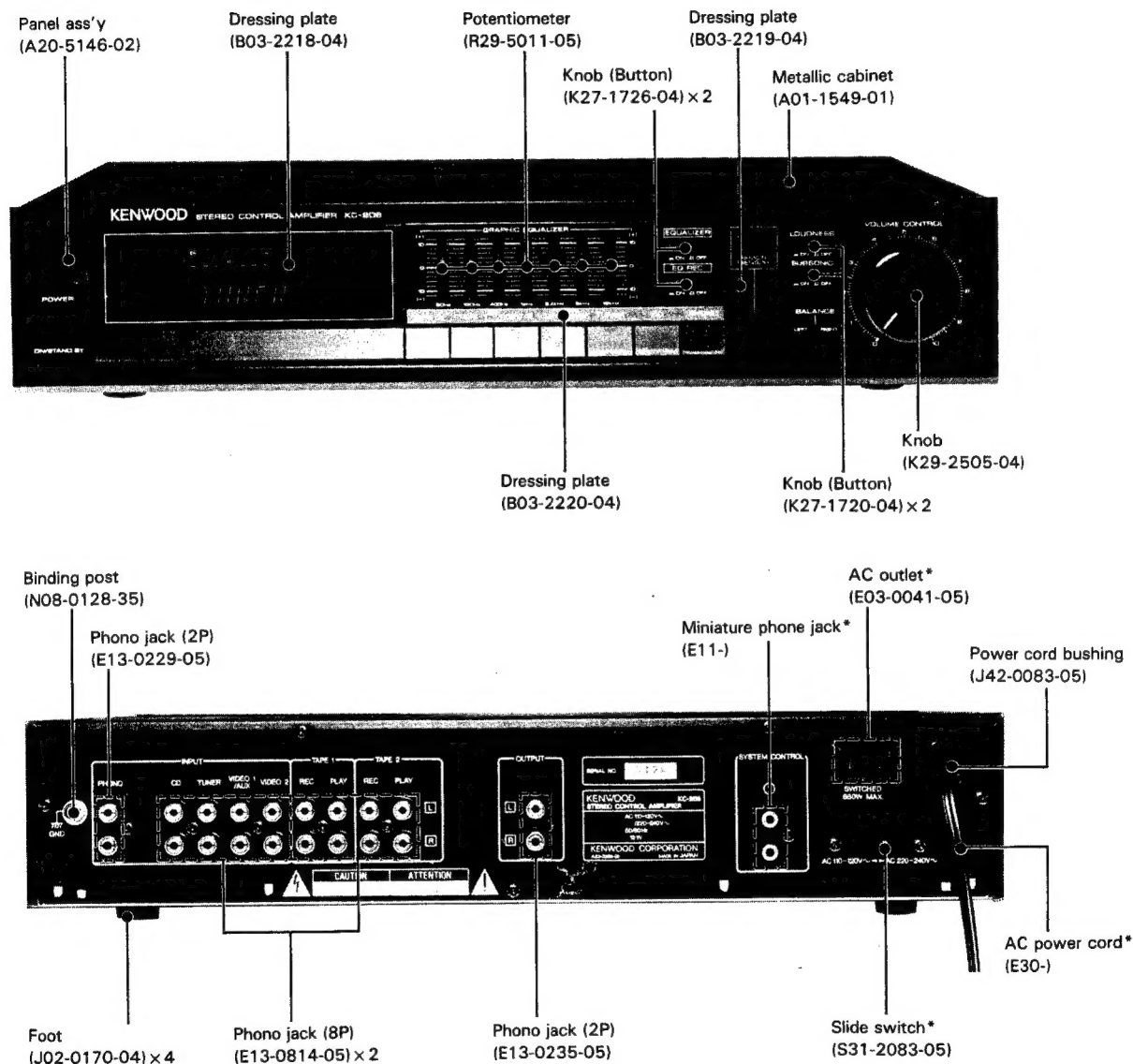
# STEREO CONTROL AMPLIFIER

# KC-206

# SERVICE MANUAL

# KENWOOD

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B51-3185-00(T)1606



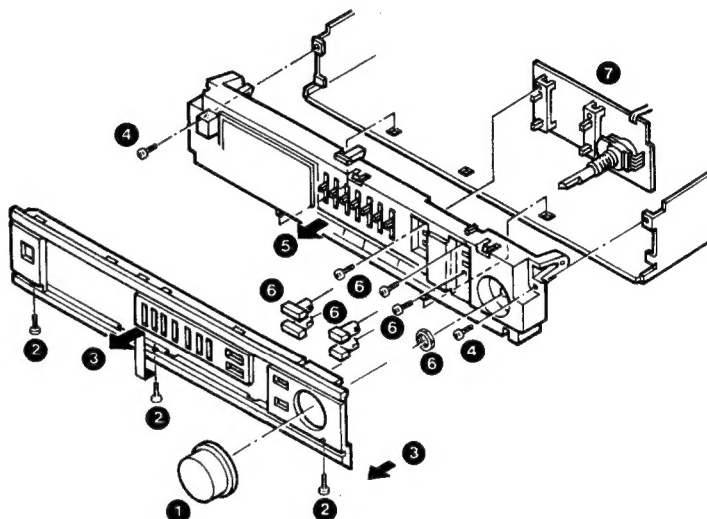
\*Refer to parts list on page 18.

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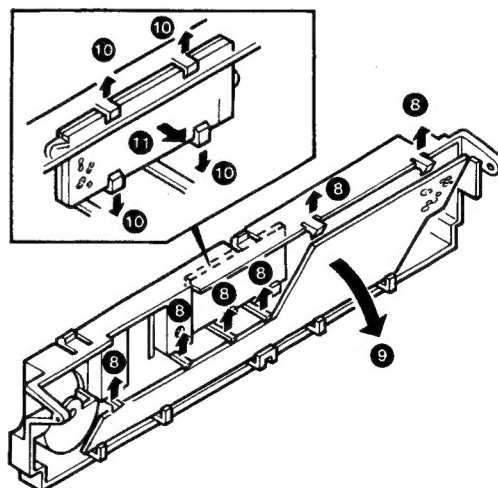
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## DISASSEMBLY FOR REPAIR

1. Remove the metallic cabinet before performing the following operations.
2. Pull out the 1 knob from the shaft (1).
3. Remove the 3 screws fixing the front panel to the sub panel (2).
4. Remove the front panel in the direction of the arrow by sliding lower side (3).
5. Remove the 2 screws fixing the sub panel to the chassis (4).
6. Remove the sub panel in the direction of the arrow (5).
7. Pull out the 4 buttons from the shafts, remove the 1 nut, and remove the 3 screws fixing the Audio Unit (X09-2420-10) (C/5) onto the sub panel (6).
8. Remove the Audio Unit (X09-) (C/5) from the sub panel (7).

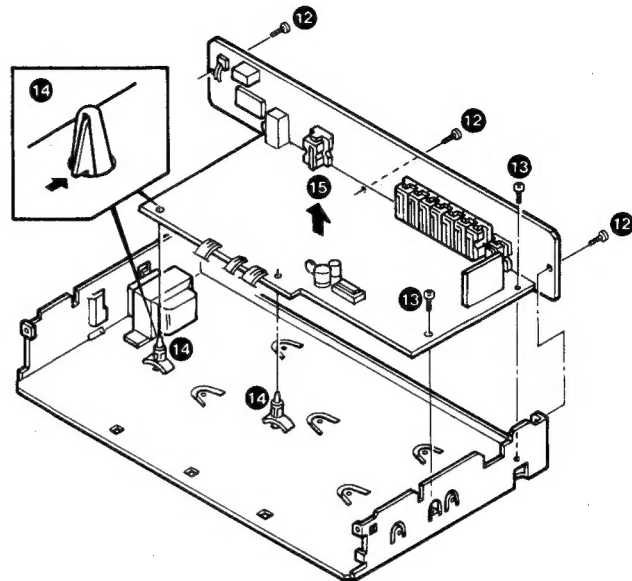


9. Disengage the 6 claws of the sub panel which retain the Audio Unit (X09-) (B/5) (8).
10. Remove the Audio Unit (X09-) (B/5) in the direction of the arrow (9).
11. Disengage the 4 claws of the sub panel which retain the potentiometer (Graphic Eq.) (10).
12. Remove the potentiometer (Graphic Eq.) from the sub panel (11).

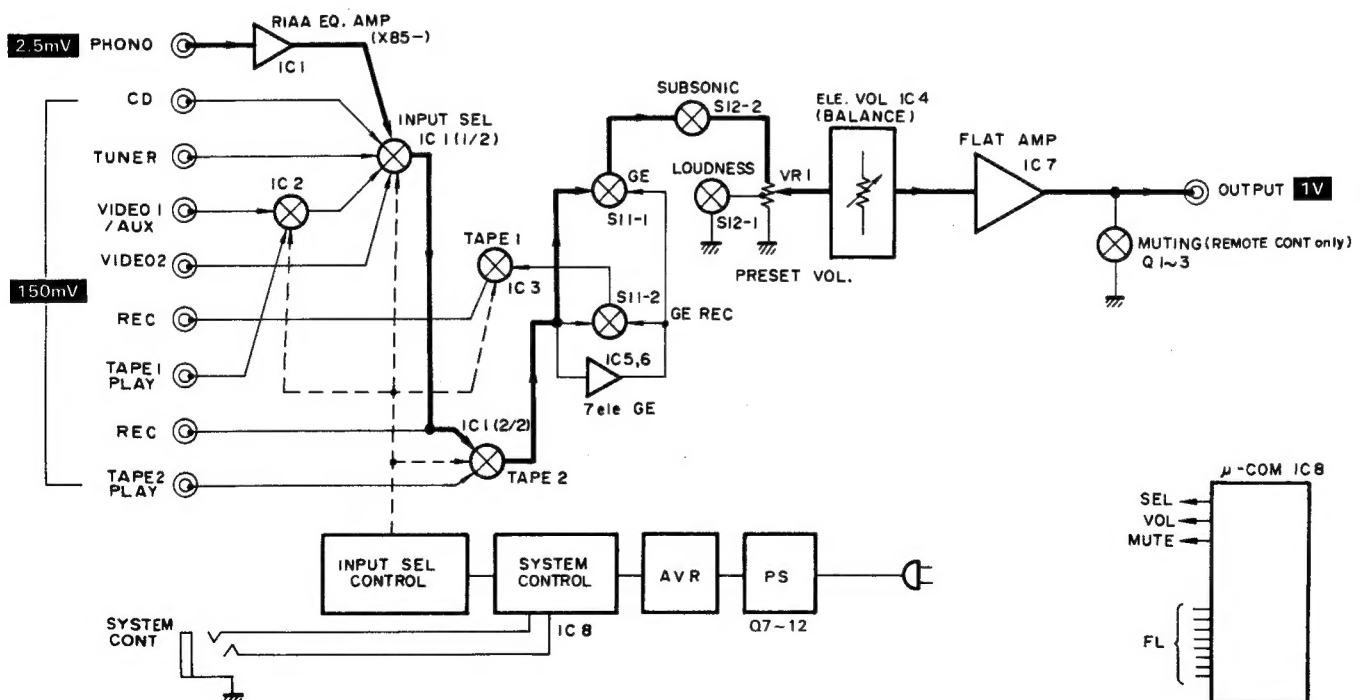


## DISASSEMBLY FOR REPAIR/BLOCK & LEVEL DIAGRAM

13. Remove the 3 screws fixing the rear panel to the chassis ( 12 ).
14. Remove the 2 screws fixing the Audio Unit (X09-) (A/5) to the chassis ( 13 ).
15. Disengage the Audio Unit (X09-) (A/5) from the 2 unit holders ( 14 ).
16. Remove the Audio Unit (X09-) (A/5) together with the rear panel, in the direction of the arrow ( 15 ).



## BLOCK & LEVEL DIAGRAM



## CIRCUIT DESCRIPTION

### DESCRIPTION OF COMPONENTS

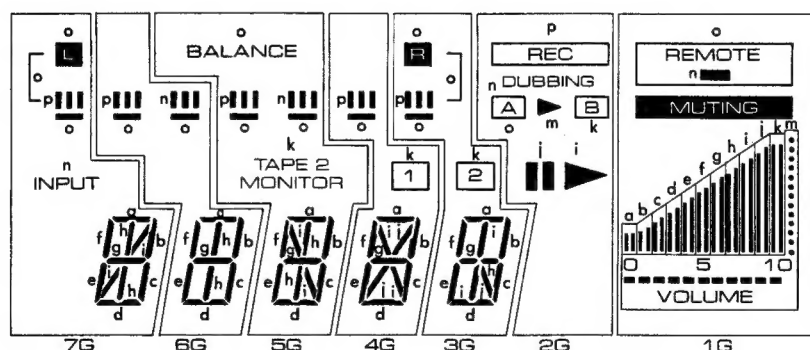
#### Audio unit (X09-2420-10)

Component	Application/function	Operation/condition/compatibility
Q1 ~ 3	Muting	Muting during selector switching.
Q4 ~ 6	Driver	Drivers of ICs 2 and 3 control signals.
Q7 ~ 10	Regulated power supply	$\pm 14$ V.
Q11	Relay driver	Driver of SW outlet switching relay.
Q12	Regulated power supply	+ 5 V.
Q13	FL driver	
Q15	Inverter	
Q16 ~ 18	Muting	Muting during RE2 selector switching.
IC1	Selector	Switches and selects input signals.
IC2, 3	Selector	Switch between VIDEO 1 and PLAY 1.
IC4	Electronic volume control	Controls the level of the signal output at PRE OUT. (0 to -76 dB)
IC5, 6	Graphic equalizer	7 points; 60, 150, 600, 1k, 2.4k, 6k, 15kHz. ( $\pm 10$ dB)
IC7	Amplifier	16 dB gain.
IC8	Microprocessor	Control of ICs 1, 2, 3 and 4, and of data communications. (With synchro function)

#### Preamplifier unit (X85-1030-12)

Component	Application/function	Operation/condition/compatibility
IC1	EQ amplifier	For phono.

#### FL display (FIP8AMW24)



#### Terminal connection

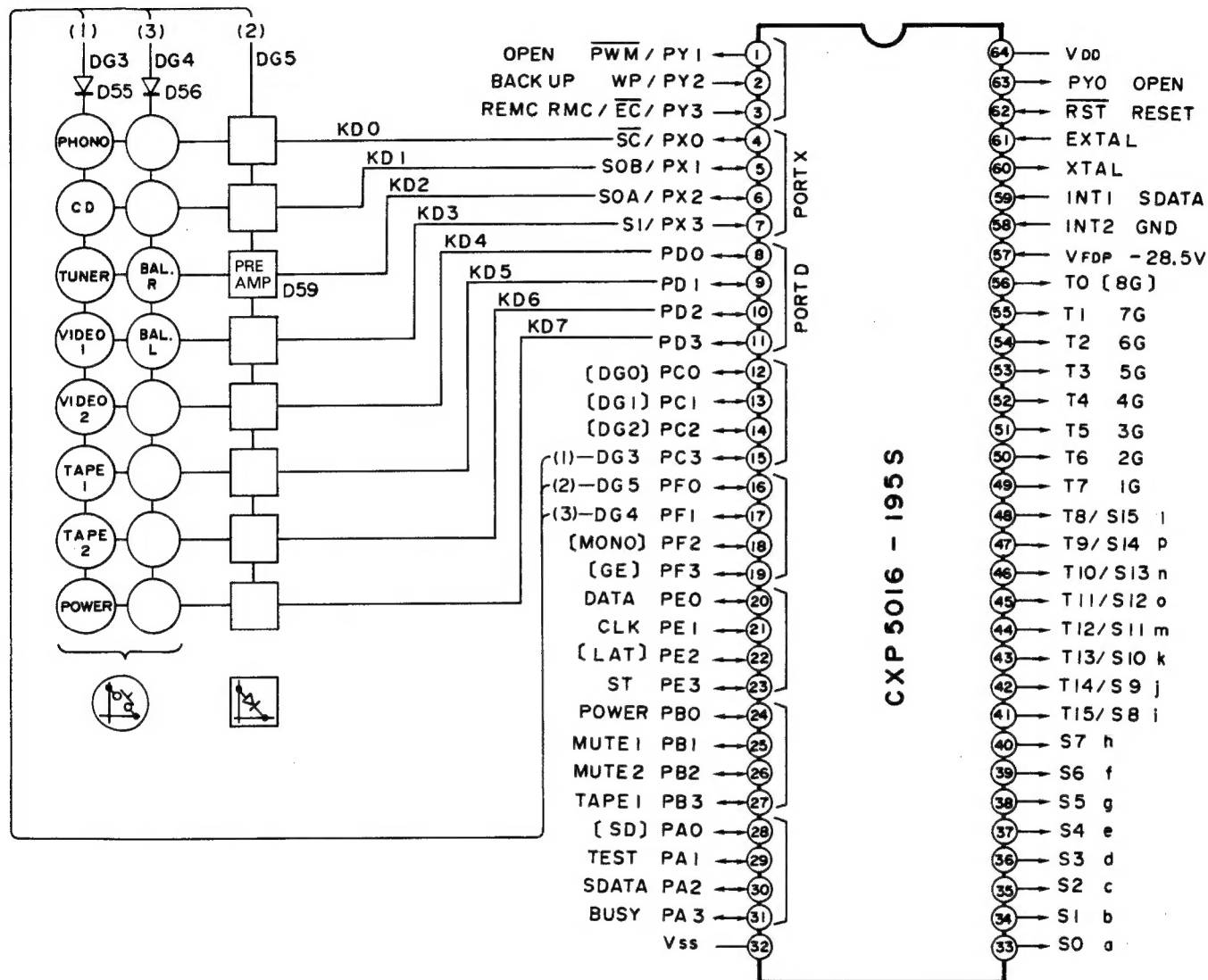
Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Electrode	F	F	NP	8G	P(A1)	P(A2)	P(A3)	8G	P(a)	P(b)	7G	P(l)	6G	P(p)	5G	P(n)	P(o)	P(m)
Terminal No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Electrode	P(k)	5G	4G	P(j)	P(l)	3G	P(i)	2G	P(h)	P(f)	P(g)	2G	P(e)	1G	P(d)	P(c)	P(b)	1G
Terminal No.	37	38	39															
Electrode	P(a)	F	F															

Notes F: Filament NP: No Pin G: Grid P: Anode

## CIRCUIT DESCRIPTION

Microprocessor IC: IC8 (CXP5016-195S)

Key matrix connection



Terminal function

Pin No.	I/O	Name	Function
1	O		Permanently H. Set to Open in actual operations.
2	I	BACK UP	Normally H is input. When L is input, the microprocessor stops oscillation and enters the backup mode. The backup mode is released when the input returns from L to H.
3	I	REMC	Remote control signal input. L active.
4 ~ 11	I	KD0 ~ KD7	Key return signal inputs. H active.
12 ~ 15 17	O	DG0 ~ DG3 DG4	Key digit outputs. Normally H output. Key scanning occurs when a key is pressed on.
16	O	DG5	Digit output for diode switch function. H output when AC power supply is turned on.
20	O	DATA	Serial data output from controlling CX7977 (selector IC) and CX7978 (electronic volume control). Latched at the rise of CLK.

## CIRCUIT DESCRIPTION

Pin No.	I/O	Name	Function
21	O	CLK	Shift clock output for transmitting data to CX7977 and CX7978. Data is latched at the rise of CLK.
23	O	ST	Data latch output for CX7977 and CX7978. Data is latched at the rise.
24	O	POWER	Relay ON/OFF port. H for relay ON.
25	O	MUTE 1	Line output muting terminal. L for muting.
26	O	MUTE 2	TAPE 2 REC output muting terminal. L for muting.
27	O	TAPE 1	Selector TAPE 1 terminal. H when TAPE 1 is selected.
29	I	TEST	Test mode setting terminal. Test mode occurs when AC power supply is turned on with L.
30	O	SDATA	Serial data output.
31	I/O	BUSY	Serial BUSY terminal.
32	—	VSS	GND.
33~48	O	a~p	FL drive segment terminals.
49~56	O	1G~8G	FL drive digit terminals. 244 $\mu$ ×8 digit=Sync.
58	I		Not used. To be short-circuited with Vss or Vdd.
59	I	SDATA	Serial data input. In use, short-circuit with pin 30.
63	O		Permanently H. Set to Open in actual operations.
64	—	VDD	+5V.

### Function & operation description

#### Operation Transition Chart

Key Pressed	POWER	PHONO CD VIDEO 1 VIDEO 2 TAPE 1	TUNER	TAPE 2	VOLUME UP/DOWN	BALANCE L/R	MUTING
Current Mode							
Immediately after power on (SELECTOR: TUNER)	Power turned OFF, FL turned OFF.	Switched to corresponding input.	No change.	TAPE 2 monitoring. No change in TAPE 2 REC OUT.	Volume changed up or down, with dB indicated.	Balance moved left or right, with BALANCE displayed.	—20 dB muting, with MUTING indicator flashing.
SELECTOR position: Other than TUNER	↑	↑	Switched to TUNER.	↑	↑	↑	↑
TAPE 2 monitoring	↑	TAPE 2 monitoring unchanged. TAPE 2 REC OUT switched.	←	TAPE 2 monitoring canceled, and switched to current SELECTOR source.	↑	↑	↑

#### 1. Amplifier facilities

##### • Input selector function

The input sources are selected by pressing the PHONO, CD, TUNER, VIDEO 1, VIDEO 2 and TAPE 1 keys. The selected source is displayed in characters on the FL tube display, at the same time as "INPUT" is illuminated. The INPUT SELECTOR is not accepted while TAPE 1 deck

is recording, unless during dubbing from deck A to deck B. The selected position is backed up even when the AC power supply is turned off. If the AC power is turned on after the specified backup period has passed, TUNER is selected automatically.

Every time an INPUT SELECTOR key is pressed, the corresponding equipment starts playback.

## CIRCUIT DESCRIPTION

### • TAPE 2 monitoring

When the TAPE 2 key is switched on, the sound of TAPE 2 deck can be monitored regardless of the INPUT SELECTOR position. During TAPE 2 monitoring, the FL tube displays "TAPE 2 MONITOR". TAPE 2 monitoring is canceled by pressing the key again.

The TAPE 2 key is not accepted during TAPE 1 deck is recording. TAPE 2 monitoring selection is also backed up after power off.

### • Electronic volume control (From remote control unit only)

The KC-206 is operated only from the remote control unit, and the volume control circuit does not operate with the key matrix of the microprocessor IC.

The volume is increased or decreased by  $\pm 2$  dB each time the VOLUME UP/DOWN switch on the remote control unit is pressed. Holding the switch depressed varies the volume continuously. When the switch is pressed, the volume setting is indicated graphically on the FL tube display. The volume display characters returns to the previous display after three seconds.

The volume control range is from 0 dB to  $-78$  dB.  $-78$  dB is the sound muting condition. The electronic volume setup is also backed up and, after the backup period, the setup when power is turned on is  $-50$  dB.

### • Electronic balance control

Each time the BALANCE L/R switch is pressed, the sound level of the corresponding channel is reduced by  $-2$  dB. The balance position is shown on the FL tube display. The balance control is provided in 10 steps for each of the L and R channels. At the Leftmost or Rightmost position, the level of the other channel becomes  $-78$  dB. The electronic balance setup is also backed up.

### • Muting (From remote control unit only)

Pressing the MUTING switch on mutes the sound level by  $-20$  dB. The FL tube displays "MUTING" at this time. The muting is canceled by pressing the switch again. The muting setup is also backed up.

### • Power ON/OFF

When the POWER switch is turned on, the high-voltage line is activated and the FL tube display appears in 0.5 second. The sound is muted for 4.5 second after power is turned on, with the volume display graphics flashing.

When the POWER switch is turned off from on, all functions used are stored in memory. The power ON/OFF setup is also backed up.

### • EQ REC

The equalizer sound, press the EQ REC switch and can only be recorded with TAPE 1 deck.

## 2. System operation facilities

### • Easy operation (synchro operations)

The playback of required equipment can be started by just pressing the corresponding INPUT SELECTOR key. In addition, playing a source equipment switches the INPUT SELECTOR automatically. However, this does not occur during recording with TAPE 1 deck.

### • Remote control operation

The remote control unit allows the control of following operations.

**Numeric keypad:** Functions as the tuner's keypad when the INPUT SELECTOR is set to TUNER, and as the CD player's keypad when it is set to CD.

**CD:**

$\triangleright$  /  $\square$ ,  $\square$ ,  $\ll$ ,  $\gg$

**TUNER:**

Direct selection, A/B switching, preset station scan, FM, AM

**TAPE A:**

$\triangleleft$ ,  $\triangleright$ ,  $\triangleleft\triangleleft$ ,  $\triangleright\triangleright$ ,  $\circ$ ,  $\square$ ,  $\square\square$

**TAPE B:**

$\triangleleft$ ,  $\triangleright$ ,  $\triangleleft\triangleleft$ ,  $\triangleright\triangleright$ ,  $\circ$ ,  $\square$ ,  $\square\square$

**PHONO:**

$\triangleright$ ,  $\square$

**AMP:**

VOLUME UP/DOWN, MUTING, PHONO, CD, TUNER, VIDEO 1, VIDEO 2, TAPE 1, TAPE 2

### • Operation indicators

With the CD player or turntable, " $\triangleright$ " on the FL tube display lights when playing starts, and " $\square\square$ " lights when in the Pause or Cuing mode. With TAPE 1 decks, " $\triangleleft$ " lights when deck A is played and "B" lights when deck "B" is played. "REC" lights during recording of deck A or B, and "DUBBING" lights during dubbing from deck A to deck B.

## 3. Power-On Initialization

When the AC power supply is turned on while the TUNER key is held depressed, the whole content of the backed-up memory is cleared (returning to the First mode).

- Selector: TUNER
- Electronic volume control:  $-50$  dB
- Balance: Center
- Muting: OFF
- TAPE 2 MONITOR: OFF

## 4. Test Functions

When the Acc power supply is turned on with the TEST pin (pin 29) short-circuited with the GND, the unit is switched on in the Test mode. In this mode, all FL display tubes are lit. Pressing the VOLUME UP/DOWN keys changes the sound level in discontinuous steps between  $-78$  dB  $\longleftrightarrow$   $-26$  dB  $\longleftrightarrow$  0 dB, and pressing the BALANCE L/R keys changes the balance discontinuously between L  $\longleftrightarrow$  CENTER  $\longleftrightarrow$  R.

## VOLTAGE TABLES

### X85-1030-12

#### IC1

4	-15.2V
8	15.1V

### X09-2420-10

#### Q4

E	-15.2V
C	-15.2V
B	-14.4V

#### Q5

E	15.1V
C	15.2V
B	14.4V

#### Q6

E	0V
C	15.1V
B	0.6V

#### Q7

E	-15.2V
C	-26V
B	-15.7V

#### Q8

E	0V
C	-15.7V
B	-0.6V

#### Q9

E	5V
C	15.6V
B	5.6V

#### Q10

E	15.1V
C	22V
B	15.6V

#### Q12

E	6V
C	6V
B	5.2V

#### Q13

E	-27.3V
C	6V
B	-23V

#### IC1

1	0V
11	-14.5V
12	-9.4V
13	-9.4V
18	4.1V
19	14.5V

#### IC2

5,6	15.1V
7	-15.2V
12,13	-15.1V
14	15.1V

#### IC3

7	-15.2V
12,13	-15.1V
14	15.1V

#### IC4

4,5	-14.5V
6,7	-9.6V
8	-14.5V
12	4.1V
13	14.5V

#### IC5,6

18	15.1V
19	0V
20	-15.2V

#### IC7

4	-15.2V
8	15.1V

#### IC8

56	-27.7V
64	5.1V

#### FL1

8	-27.3V
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A

B

C

D

E

F

G

H

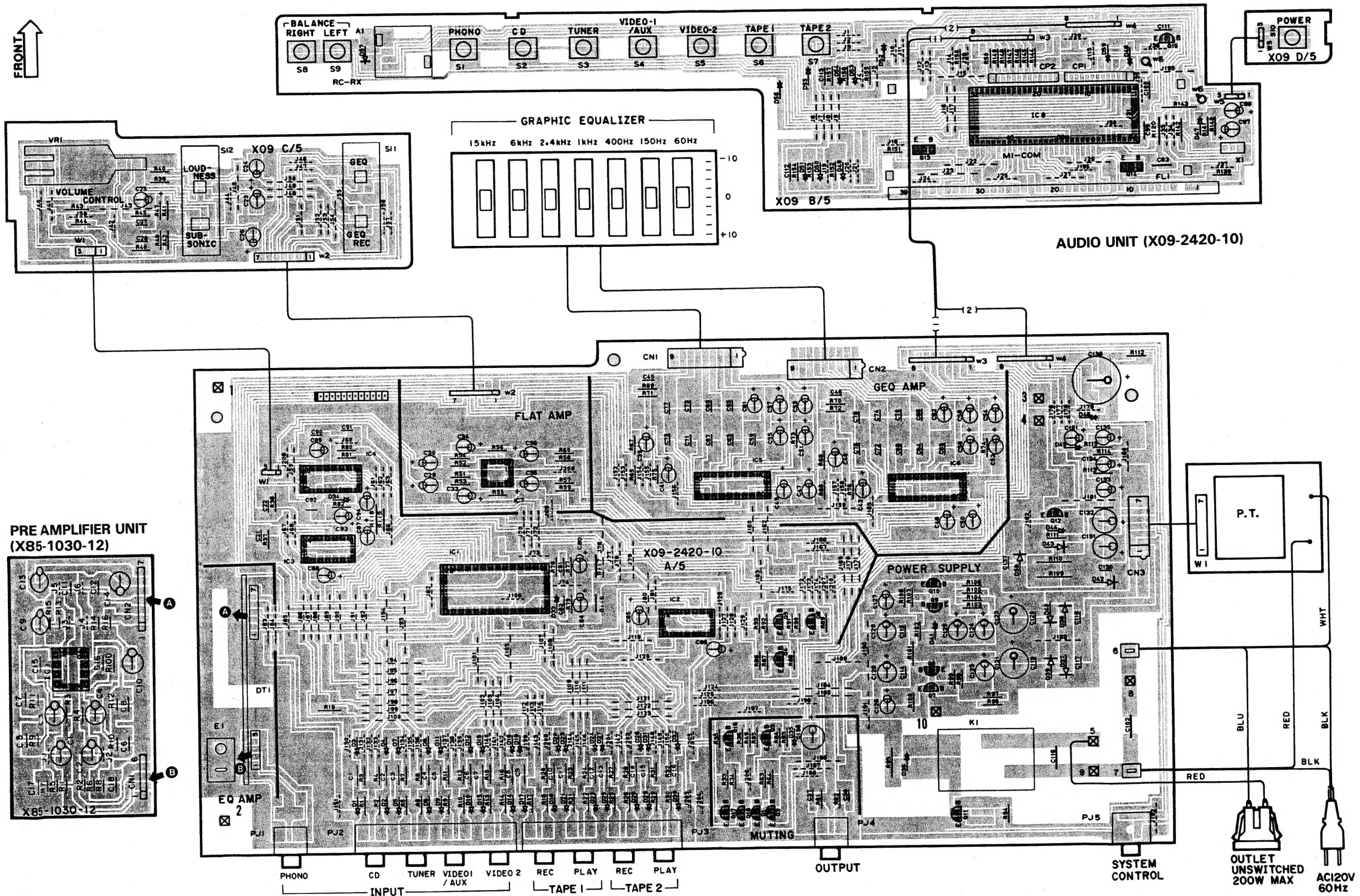
I

J

Component side view

## P.C. BOARD

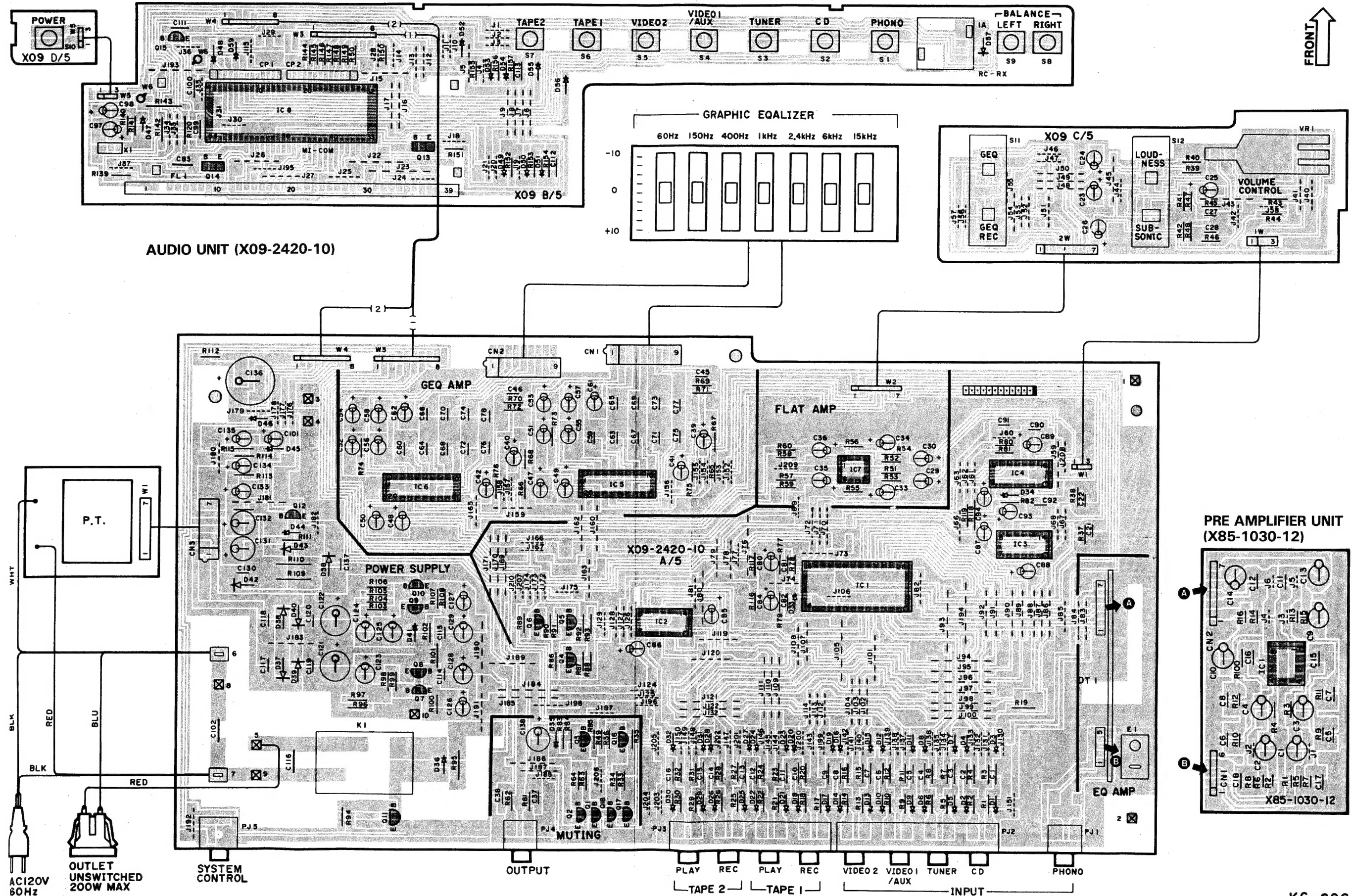
FRONT





Foil side view

# P.C. BOARD



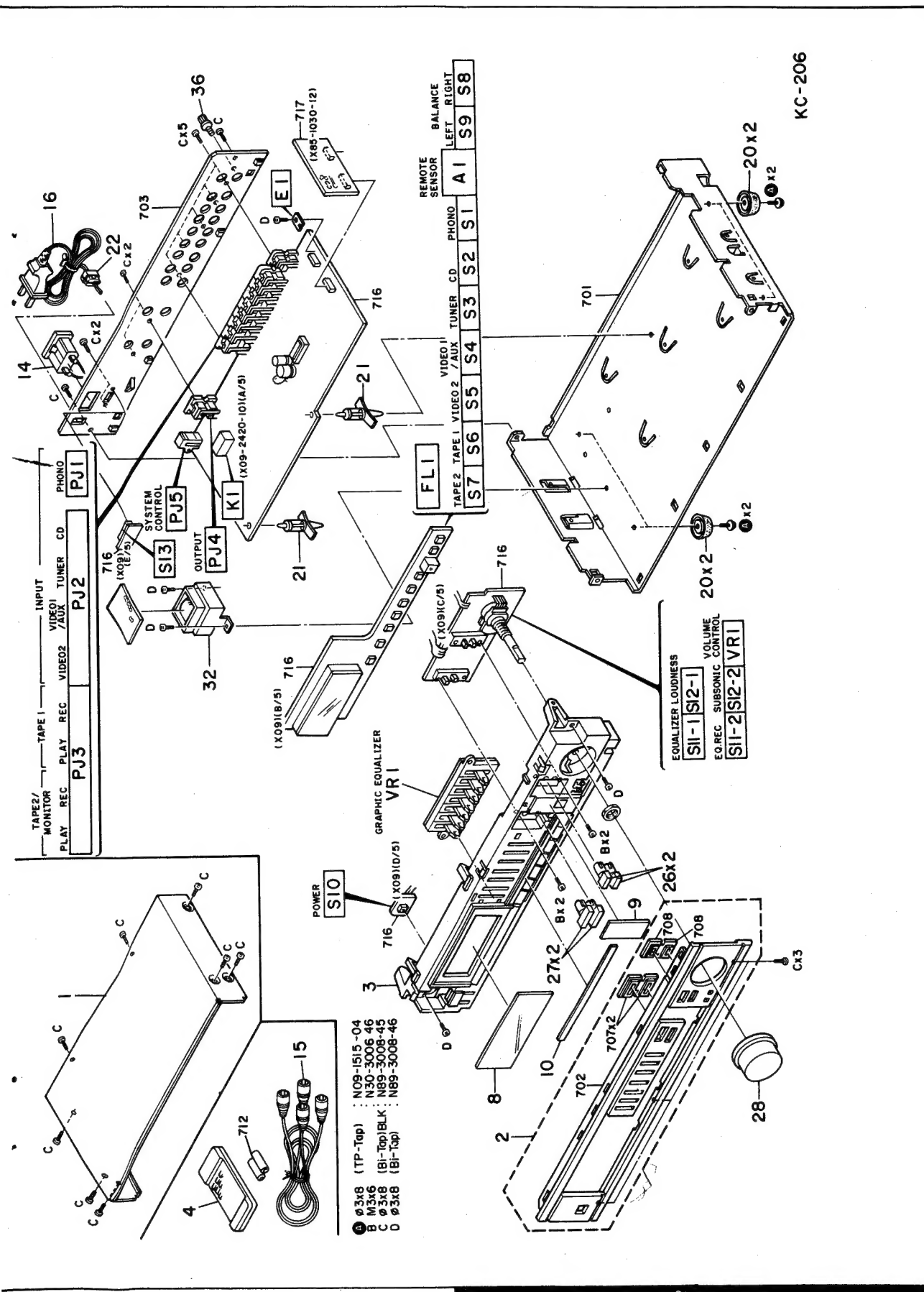
FRONT







EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

× New Parts  
Parts without Parts No. are not supplied.  
Les articles non mentionnés dans le Parts No. ne sont pas fournis.  
Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New Parts	Parts No.	Description	Destination	Remarks
参照番号	位置	新	部品番号	部品名/規格	仕向	備考
KC-206						
1	1A		A01-1549-01	METALLIC CABINET		
2	2A	*	A20-5146-02	PANEL ASSY		
3	1A	*	A22-0650-02	SUB PANEL ASSY		
4	1A	*	A70-0163-15	REMOTE CONTROLLER ASSY	KUUE	
4	1A	*	A70-0164-05	REMOTE CONTROLLER ASSY	PMX	
8	2A	*	B03-2218-04	DRESSING PLATE (DISPLAY)		
9	2A	*	B03-2219-04	DRESSING PLATE (REMOTE SENSOR)		
10	2A	*	B03-2220-04	DRESSING PLATE (TAPE, VISEO, ETC)		
			B46-0092-03	WARRANTY CARD	K	
			B46-0094-03	WARRANTY CARD	UUE	
			B46-0095-03	WARRANTY CARD	UUE	
			B46-0096-13	WARRANTY CARD	X	
			B46-0121-03	WARRANTY CARD	P	
		*	B50-6721-00	INSTRUCTION MANUAL(ENGLISH)		
		*	B50-6722-00	INSTRUCTION MANUAL(FRENCH)	PMX	
		*	B50-6723-00	INSTRUCTION MANUAL(SPANISH)	M	
		*	B50-6724-00	INSTRUCTION MANUAL(ARABIC)	M	
			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
			B58-0269-04	CAUTION CARD	K	
			B58-0513-04	CAUTION CARD (PRESET220-240)	UE	
			B59-0092-00	SERVICE DIRECTORY	UUE	
Δ 14	1C		E03-0041-05	AC OUTLET	KPUMUE	
Δ 15	1A		E30-0505-05	AUDIO CORD		
Δ 16	1C		E30-0812-05	AC POWER CORD	UMUE	
Δ 16	1C		E30-0996-05	AC POWER CORD	KP	
Δ 16	1C		E30-1341-05	AC POWER CORD	X	
		*	H01-7527-04	ITEM CARTON CASE		
		*	H10-3362-02	POLYSTYRENE FOAMED FIXTURE		
		*	H12-1161-04	PACKING FIXTURE		
			H25-0148-04	PROTECTION BAG (110X230XD.07)		
			H25-0223-04	PROTECTION BAG (750X350XD.03)		
			H25-0232-04	PROTECTION BAG (235X350XD.03)		
20	2B,2C		J02-0170-04	FOOT		
21	1B,1C		J19-0514-05	UNIT HOLDER		
Δ 22	1C		J42-0083-05	POWER CORD BUSHING		
			J61-0307-05	WIRE BAND		
26	2A		K27-1720-04	KNOB (BUTTON)LOUDNESS,SUBSONIC		
27	2A		K27-1726-04	KNOB (BUTTON)EQ,EO, REC		
28	2A		K29-2505-04	KNOB (VOLUME CONTROL)		
Δ 32	1B	*	L01-7791-05	POWER TRANSFORMER	KP	
Δ 32	1B	*	L01-7794-05	POWER TRANSFORMER	UMUE	
Δ 32	1B	*	L01-7797-05	POWER TRANSFORMER	X	
36	1C		N08-0128-35	BINDING POST (GND)		
A	2B,2C		N09-1515-05	TAPPING SCREW (Ø3X8)		
VR1	1B		R29-5011-05	POTENTIOMETER (GRAPHIC EQ)		
IC1			M50461-057SP	IC(REMOTE CONTROLLER)	KUUE	
AUDIO UNIT (X09-2420-10)						
C1 -16			C91-0745-05	CERAMIC 100PF K		
C21 ,22			CC45FSL1H331J	CERAMIC 330PF J		

E: Scandinavia & Europe K: USA P: Canada  
U: PX(Far East, Hawaii) T: England M: Other Areas  
UE: AAFES(Europe) X: Australia

Δ indicates safety critical components.

× New Par  
Parts with  
Les articles  
Teile ohne F

Ref. No.	参照番号
C23 ,24	
C25 ,26	
C27 ,28	
C29 ,30	
C33 ,34	
C35 ,36	
C37 ,38	
C39 ,40	
C45 ,46	
C47 ,50	
C51 ,52	
C53 ,54	
C55 ,56	
C57 ,58	
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C102	
C111	
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C116	
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C121,122	
C123,124	
C125	
C126,127	
C128,129	
C130	
C131,132	
C133	
C134	
C135	
C136	
C137	
C138	

E: Scar  
U: PX(F  
UE: AP

## PARTS LIST

\* New Parts

Parts without Parts No. are not supplied.

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Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C23 ,24 C25 ,26 C27 ,28 C29 ,30 C33 ,34			CE04KW1HR22M CF92FV1H513J CF92FV1H333J CE04KW1H100M CE04KW0J221M	ELECTR0 0.22UF 50WV MF 0.051UF J MF 0.033UF J ELECTR0 10UF 50WV ELECTR0 220UF 6.3WV		
C35 ,36 C37 ,38 C39 ,42 C45 ,46 C47 -50			CE04KW1E470M CK45FB1H471K CE04KW1A101M CK45FB1H471K CE04KW1V100M	ELECTR0 47UF 25WV CERAMIC 470PF K ELECTR0 100UF 10WV CERAMIC 470PF K ELECTR0 10UF 35WV		
C51 ,52 C53 ,54 C55 ,56 C57 ,58 C59 ,60			CE04KW1HOR1M CE04KW1H2R2M CE04KW1HOR1M CE04KW1HR47M CF92FV1H303J	ELECTR0 0.1UF 50WV ELECTR0 2.2UF 50WV ELECTR0 0.1UF 50WV ELECTR0 0.47UF 50WV MF 0.030UF J		
C61 ,62 C63 ,64 C65 ,66 C67 ,68 C69 ,70			CE04KW1HR22M CF92FV1H123J CF92FV1H823J CF92FV1H512J CF92FV1H333J	ELECTR0 0.22UF 50WV MF 0.012UF J MF 0.082UF J MF 5100PF J MF 0.033UF J		
C71 ,72 C73 ,74 C75 ,76 C77 ,78 C80			CF92FV1H202J CF92FV1H133J CK45FB1H821K CF92FV1H472J CE04KW1C221M	MF 2000PF J MF 0.013UF J CERAMIC 820PF K MF 4700PF J ELECTR0 220UF 16WV		
C81 -83 C84 C85 -88 C89 C90 -92			C91-0769-05 CE04KW1C221M CE04KW1H010M CE04KW1C221M CK45FF1H223Z	CERAMIC 0.01UF M ELECTR0 220UF 16WV ELECTR0 1.0UF 50WV ELECTR0 220UF 16WV CERAMIC 0.022UF Z		
C93 C94 C97 C98 C99 ,100			CE04KW1H100M CE04KW1C221M CE04KW1H100M CE04KW1V100M C91-0769-05	ELECTR0 10UF 50WV ELECTR0 220UF 16WV ELECTR0 10UF 50WV ELECTR0 10UF 35WV CERAMIC 0.01UF M		
△ C101 C102 C111 C112,113 C114,115			CE04KW1V100M C91-0647-05 C91-0769-05 C91-0757-05 CK45FF1H223Z	ELECTR0 10UF 35WV CERAMIC 0.01UF P CERAMIC 0.01UF M CERAMIC 0.001UF K CERAMIC 0.022UF Z		
△ C116 C117-120 C121,122 C123,124 C125			C91-0647-05 CK45FF1H223Z CE04KW1V471M CE04KW1V470M CE04KW1A221M	CERAMIC 0.01UF P CERAMIC 0.022UF Z ELECTR0 470UF 35WV ELECTR0 47UF 35WV ELECTR0 220UF 10WV		
C126,127 C128,129 C130 C131,132 C133			CE04KW1H100M CE04KW1C470M CK45FF1H223Z CE04KW1E221M CE04KW1A101M	ELECTR0 10UF 50WV ELECTR0 47UF 16WV CERAMIC 0.022UF Z ELECTR0 220UF 25WV ELECTR0 100UF 10WV		
C134 C135 C136 C137 C138			CE04KW1V100M CE04KW1V220M C90-1416-05 CK45FF1H223Z CE04KW0J471M	ELECTR0 10UF 35WV ELECTR0 22UF 35WV ELECTR0 18UF 5.5WV CERAMIC 0.022UF Z ELECTR0 470UF 6.3WV		

E: Scandinavia & Europe K: USA P: Canada  
 U: PX(Far East, Hawaii) T: England M: Other Areas  
 UE: AAFES(Europe) X: Australia

△ indicates safety critical components.

## PARTS LIST

\* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
E1 PJ1 PJ2 ,3 PJ4 PJ5	1C 1B 1B 1B 1B		E23-0149-05 E13-0229-05 E13-0814-05 E13-0235-05 E11-0165-05	TERMINAL PHONE JACK(2P) PHONE PHONE JACK(8P) INPUT, TAPE PHONE JACK(2P) OUTPUT MINIATURE PHONE JACK		UMUE
PJ5	1B		E11-0168-05	MINIATURE PHONE JACK		KPX
X1			L78-0209-05	RESONATOR (4.194MHZ)		
CP1 ,2 R95 R109,110 VR1		*	R90-0479-05 RS14KB3A470J RS14KB3D182J R06-5157-05	MULTIPLE RESISTOR FL-PROOF RS 47 J 1W FL-PROOF RS 1.8K J 2W POTENTIOMETER (VOLUME CONTROL)		
△ K1 S1 -10 S11 S12 △ S13	1B 1A,2C 2B 2B 1B	*	S51-1036-05 S40-1064-05 S42-2143-05 S42-2155-05 S31-2083-05	MAGNETIC RELAY PUSH SWITCH MULTIPLE PUSH SWITCH(EQUALIZER) MULTIPLE PUSH SWITCH(EQ.REC) SLIDE SWITCH (POWER TYPE)		UMUE
D1 -32 D1 -32 D33 ,34 D33 ,34 D35			1SS133 1SS176 HZ55.1N(B2) RD5.1ES(B2) 1SS133	DIODE DIODE ZENER DIODE ZENER DIODE DIODE		
D35 D36 D36 D37 -40 D41			1SS176 1SS131 1SS178 DSM1A1 HZ55.1N(B2)	DIODE DIODE DIODE DIODE ZENER DIODE		
D41 D42 ,43 D44 D44 D45			RD5.1ES(B2) DSM1A1 HZ55.1N(B2) RD5.1ES(B2) HZ56.2N(B2)	ZENER DIODE DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
D45 D46 D46 D47 -57 D47 -57			RD6.2ES(B2) 1SS131 1SS178 1SS133 1SS176	ZENER DIODE DIODE DIODE DIODE DIODE		
D58 D59 D59 -63 FL1 IC1		*	DSM1A1 1SS176 1SS133 FIP8AMW24 CX7977	DIODE DIODE DIODE FLUORESCENT INDICATOR TUBE IC(FUNCTION SW FOR AUDIO)		
IC2 ,3 IC4 IC5 ,6 IC7 IC8	1B	*	LC4966 CXD1120P M5229P UPC4570C CXP5016-1955	IC(CMOS LOGIC BILATERAL SW) IC(ELECTRONIC VOLUME) IC(7CH GRAPHIC EQUALIZER) IC(8P AMP X2) IC(MICROPROCESSOR)		
Q1 ,2 Q3 Q3 Q4 Q4		*	2SC2878(B) 2SA733(A)(Q,P) 2SA999(E,F) 2SC2320(E,F) 2SC945(A)(Q,P)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q5 Q5		*	2SA733(A)(Q,P) 2SA999(E,F)	TRANSISTOR TRANSISTOR		

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Q6			2SC2320(E,F)	TRANSISTOR		
Q6			2SC945(A)(Q,P)	TRANSISTOR		
Q7			2SB941(P)	TRANSISTOR		
Q8			2SA733(A)(Q,P)	TRANSISTOR		
Q8			2SA999(E,F)	TRANSISTOR		
Q9			2SC2320(E,F)	TRANSISTOR		
Q9			2SC945(A)(Q,P)	TRANSISTOR		
Q10			2SD1266(P)	TRANSISTOR		
Q11			2SC3246	TRANSISTOR		
Q12			2SA1286(H)	TRANSISTOR		
Q13			DTC124EFF	DIGITAL TRANSISTOR		
Q15			2SC2320(E,F)	TRANSISTOR		
Q15			2SC945(A)(Q,P)	TRANSISTOR		
Q16			2SA733(A)(Q,P)	TRANSISTOR		
Q16			2SA999(E,F)	TRANSISTOR		
Q17 ,18			2SC2878(B)	TRANSISTOR		
A1	2C		W02-0719-05	ELECTRIC CIRCUIT MODULE		
<b>PRE AMPLIFIER UNIT (X85-1030-12)</b>						
C1 ,2			CE04FW1C100M	ELECTR0 10UF 16WV		
C3 ,4			CE04KW0J331M	ELECTR0 330UF 6.3WV		
C5			CF92FV1H123J	MF 0.012UF J		
C6			CF92FV1H123J	MF 0.012UF J		
C7			CF92FV1H332J	MF 3300PF J		
C8			CF92FV1H332J	MF 3300PF J		
C9 ,10			CE04KW1E470M	ELECTR0 47UF 25WV		
C11 ,12			CK45FF1H103Z	CERAMIC 0.010UF Z		
C15 ,16			CK45FB1H561K	CERAMIC 560PF K		
C17 ,18			CC45FSL1H101J	CERAMIC 100PF J		
IC1			UPC4570C	IC(8P AMP X2)		

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## SPECIFICATIONS

### PERFORMANCE

#### Input Sensitivity/Impedance/Signal-to-Noise Ratio (IHF-A Curve)

**PHONO** ..... 2.5 mV/47 kohms/79 dB, 85 dB (5.0 mV)

**TUNER/AUX/TAPE PLAY/CD/VIDEO** ..... 150 mV/33 kohms/103 dB

**Maximum Input Voltage for Phono** ..... 150 mV (RMS), T.H.D. 0.03% at 1,000 Hz

#### Frequency Response

**PHONO** ..... RIAA Standard Curve  $\pm 0.3$  dB  
(20 Hz - 20 kHz)

**AUX  $\rightarrow$  Out** ..... 10 Hz - 70 kHz ( $-3$  dB)

**Subsonic Filter** ..... 18 Hz, 6 dB/Octave

#### Total Harmonic Distortion

**AUX  $\rightarrow$  Out**

**20 Hz ~ 20 kHz** ..... 0.004% at Rated Output

**1 kHz** ..... 0.003% at Rated Output

**Output Voltage and Impedance** ..... TAPE REC: 150 mV/330 ohms

**Loudness Control** ..... +8 dB (100 Hz) (at volume  $-30$  dB)

#### Graphic equalizer control

(60 Hz, 150 Hz, 400 Hz, 1 kHz,

2.4 kHz, 6 kHz, 15 kHz) .....  $\pm 10$  dB

### GENERAL

**Power Requirement** ..... 60 Hz 120 V (U.S.A. and Canada Model)  
Model sold elsewhere incorporates switch to  
accommodate 50/60 Hz  
110 ~ 120 V/220 ~ 240 V

**Power Consumption** ..... 12 W

**AC Outlet** ..... 1 Switched (Except for some areas.)

**Dimensions** ..... W 420 mm (16-9/16")

H 89 mm (3-1/2")

D 273 mm (10-3/4")

**Weight (Net)** ..... 3.0 kg (6.6 lb)

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

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